

Air Quality Permitting Statement of Basis

April 24, 2006

Permit to Construct No. P-050037

Western Construction, Incorporated Boise, ID

Facility ID No. 777-00212

Prepared by:

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FINAL

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Acronyms, Units, and Chemical Nomenclatures

AACC acceptable ambient concentration of carcinogenic

ACC acceptable ambient concentration of non-carcinogenic

acfm actual cubic feet per minute

AFS AIRS Facility Subsystem

AIRS Aerometric Information Retrieval System

Btu/hr British thermal unit per hour CFR Code of Federal Regulations

CO carbon monoxide

DEO Department of Environmental Quality

EI emissions inventory

EPA U.S. Environmental Protection Agency

gal/hr gallon per hour

gr/dscf grain (1 lb = 7,000 grains) per dry standard cubic feet

HAPs Hazardous Air Pollutants

HMA hot-mix asphalt

IDAPA a numbering designation for all administrative rules in Idaho promulgated in accordance with

the Idaho Administrative Procedures Act

NOx nitrogen oxides

NSPS New Source Performance Standards

PAH polyaromatic hydrocarbons

PM particulate matter

PM₁₀ particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers

PSD Prevention of Significant Deterioration

PTC permit to construct

Rules Rules for the Control of Air Pollution in Idaho

SIP State Implementation Plan

SIC Standard Industrial Classification

SM Synthetic Minor SO₂ sulfur dioxide

TAP toxic air pollutant

T/yr tons per year

μg/m³ micrograms per cubic meterVOC volatile organic compound

1. PURPOSE

The purpose for this memorandum is to satisfy the requirements of IDAPA 58.01.01.200, Rules for the Control of Air Pollution in Idaho, for issuing permits to construct.

2. FACILITY DESCRIPTION

This portable hot mix asphalt (HMA) facility produces asphalt. Stockpiled aggregate and soil fines are conveyed to a rotary kiln drum drier where they are dried, heated, and combined with asphalt cement to produce asphalt. The asphalt is either loaded to trucks for transport off site, or transferred to silos for temporary storage.

3. FACILITY / AREA CLASSIFICATION

Western Construction Inc. is not a major facility as defined in IDAPA 58.01.01.205, nor is it a designated facility as defined in IDAPA 58.01.01.006.27. The potential to emit of any criteria air pollutant is below 100 T/yr, and potential emissions rates for HAPs are below 25 T/yr collectively, and less than 10 T/yr for any single HAP. The primary Standard Industrial Classification (SIC) code for the facility is 2951. The facility is defined as a synthetic minor (SM) facility because, without using the control system to control the particulates and without permit limit on the potential to emit of CO, the PM₁₀ and CO emissions would exceed 100 tons per year. The AIRS classification is "SM".

The facility is a portable facility and may locate anywhere in the state of Idaho except for nonattainment areas.

The AIRS information provided in Appendix A defines the classification for each regulated air pollutant for Western Construction. This information is entered into the EPA AIRS database.

4. APPLICATION SCOPE

Western Construction has applied for burning used oil in the HMA drum dryer, which wasn't permitted in the exiting PTC. In addition, as a result of DEQ policy updates, the following changes are made to the permit: 1)The facility shall not collocate with another HMA plant; and 2)The facility shall conduct performance testing on the drum dryer every five years in addition to performance test required by 40 CFR 60.8.

4.1 Application Chronology

August 10, 2005	The permit to construct application was received by DEQ.
August 29, 2005	The permit application was declared active.
September 28, 2005	The permit application was declared complete.
March 1, 2006	Additional information, including asphalt tank heater, was received.
March 29, 2006	The draft permit was issued to Western Construction for facility review.
April 21, 2006	DEO received the facility's comments on the draft permit

4.2 Permit Chronology

- PTC No. 777-00212, issued February 13, 1998, was the initial permit for the HMA plant.
- PTC No. 777-00212, issued June 25, 1999, allowed the facility to collocate in NAAQS attainment areas.
- PTC No. 777-00212, issued June 16, 2000, was issued in conjunction with a facility fugitive dust control plan.

5. PERMIT ANALYSIS

This section of the Statement of Basis describes the regulatory requirements for this PTC action:

5.1 Equipment Listing

There is no change to the equipment since last permit issued June 16, 2000 except for the electric generator. The rated fuel rate of current generator is 54 gal/hr. It is the replacement of original generator set due to the generator set equipment failure. However, to be conservative and allow for future equipment replacement up to the original fuel rate, the analysis for this PTC modification is based on fuel rate of 67.7 gal/hr.

The information on the asphalt tank heater is provided in March 1, 2006 submittal. It is added here because it was not included in the former PTC memorandum.

Asphalt Tank Heater

Manufacturer:

Power Flame

Rated heat input capacity:

520,000 Btu/hr

Maximum amount burned/hr:

4 gal/hr

Burner fuel type:

No.2 diesel oil

Stack Information

Stack height:

10.6 feet

Stack diameter:

0.92 feet

Stack flowrate:

254 acfm

Stack temperature:

650 °F

5.2 Emissions Inventory

A detailed emissions inventory (EI) was provided in the application. The EI has been reviewed by DEQ and appears to accurately reflect emissions from the facility. Tables 5.1, 5.2, and 5.3 provide a summary of EIs for criteria pollutants when the HMA is stand alone in an attainment/unclassifiable area, or collocated with another portable source in an attainment/unclassifiable area, or stand alone in a non-attainment area. The facility's EI can be found in Appendix B of the statement of basis.

Table 5.1 EMISSION SUMMARY - NONCOLLOCATED IN ATTAINMENT AREA

		Emissi	ons (T/yr)	
Pollutant	HMA Dryer	Generator	Asphalt Tank Heater	Facility Total
CO	86.04	12.96	0.021	99.02
NO _x	36.40	48.78	0.35	85.53
PM ₁₀	15.22	0.87	0.023	16.11
SO ₂	38.39	7.77	1.24	47.40
VOC	21.18	1.25	5.96E-03	22.44
TAPS	10.62	0.01	3.26E-11	10.63

Table 5.2 EMISSION SUMMARY - COLLOCATED IN ATTAINMENT AREA

		Emissi	ons (T/yr)	
Pollutant	HMA Dryer	Generator	Asphalt Tank Heater	Facility Total
CO	43.02	6.48	0.021	49.52
NO _x	18.20	24.39	0.35	42.94
PM ₁₀	7.61	0.44	0.023	8.07
SO ₂	19.19	3.89	1.24	24.32
VOC	10.59	0.62	5.96E-03	11.22
TAPS	< 10.62	< 0.01	3.26E-11	< 10.63

Table 5.3 EMISSION SUMMARY - NONCOLLOCATED IN NONATTAINMENT AREA

		Emissi	ons (T/yr)	
Pollutant	HMA Dryer	Generator	Asphalt Tank Heater	Facility Total
CO	85.33	12.85	0.021	49.52
NO _x	36.40	48.37	0.35	42.94
PM ₁₀	15.10	0.87	0.023	8.07
SO ₂	38.07	7.71	1.24	24.32
VOC	21.00	1.24	5.96E-03	11.22
TAPS	< 10.62	< 0.01	3.26E-11	< 10.63

5.3 Modeling

The facility has demonstrated compliance to DEQ's satisfaction that emissions from this facility will not cause or significantly contribute to a violation of any ambient air quality standard. The facility's modeling analysis can be found in Appendix C of the statement of basis. A summary of the modeling analysis is presented in Tables 5.4 and 5.5.

Table 5.4 FULL IMPACT ANALYSIS RESULTS

Pollutant	Averaging Period	Facility Ambient Impact (µg/m³)	Background concentration (µg/m³)	Total Ambient Concentration (µg/m³)	NAAQS (μg/m³)	Percent of NAAQS
со	l-hr	160	3600	3760	40000	9%
CO	8-hr	112	2300	2412	10000	24%
Lead	Quarterly	1.13E-03	0.03	0.03	1.5	2%
NO ₂	Annual	12	17	29	100	29%
DM	24-hr	8	73	81	150	54%
PM_{10}	Annual	0.7	26	27	100 150 50 1300	53%
	3-hr	140	34	174	1300	13%
SO_2	24-hr	62	26	88	365	24%
	Annual	8.3	8	16	80	20%

Table 5.5 FULL IMPACT ANALYSIS RESULTS FOR TAPS INCREMENT

Pollutant	Average period	Concentration (μg/m³)	Regulatory Limit (μg/m³) AAC	Regulatory Limit (μg/m³) AACC	Percent of Limit
Acetaldehyde	Annual	0.286		0.45	0.80%
HC1		0.122	375		0.03%
Propionaldehyde	24 hour	0.076	21.5	-	0.35%
Quinone		0.093	20	1	0.47%

5.4 Regulatory Review

This section describes the regulatory analysis of the applicable air quality rules with respect to this PTC modification.

IDAPA 58.01.01.201 Permit to Construct Required

This facility has applied to burn used oil in their HMA drum dryer. The proposed change is a modification in accordance with 40 CFR 60.14 and IDAPA 58.01.01.006.56. The proposed change does not qualify for an exemption under Sections 220 through 223 of the Rules; therefore, a Permit to Construction is required.

IDAPA 58.01.01.203.02..... NAAQS

"No permit to construct shall be granted for a new or modified stationary source unless the applicant shows to the satisfaction of the Department all of the following:...02. NAAQS...."

The facility has demonstrated compliance, to DEQ's satisfaction, that this project will not cause or significantly contribute to a violation of any ambient air quality standards of CO, lead, PM₁₀, NO₂, and SO₂. The summary of the modeling analysis is in Table 5.4.

IDAPA 58.01.01.203.03...... Toxic Air Pollutants (TAP)

"No permit to construct shall be granted for a new or modified stationary source unless the applicant shows to the satisfaction of the Department all of the following:...03. Toxic Air Pollutants Using the methods provided in Section 210, the emissions of toxic air pollutants from the stationary source or modification would not injure or unreasonably affect human or animal life or vegetation as required by Section 161. Compliance with all applicable toxic air pollutant carcinogenic increments and toxic air pollutant non-carcinogenic increments will also demonstrate preconstruction compliance with Section 161 with regards to the pollutants listed in Sections 585 and 586."

The permittee proposed to operate the emissions units as they were permitted in June 16, 2000 PTC except for the drum dryer. The applicant has applied for burning used oil in the drum dryer that was not originally permitted in the June 16, 2000 permit. This is a modification. The TAP increment analysis has been conducted for this modification. The detailed analysis can be found in Appendix B. The emissions of Acetaldehyde, HCl, Propionaldehyde, and Quinone exceeded their respective screen emissions levels. These TAPs were modeled. The modeled ambient concentrations were less than their respective acceptable ambient concentrations for non-carcinogens and acceptable ambient concentrations for carcinogens. Therefore, the facility is in compliance with IDAPA 58.01.01.203.03.

IDAPA 58.01.01 675...... Fuel Burning Equipment

This regulation establishes particulate matter emission standards (grain loading standards) for fuel burning equipment. Fuel burning equipment is defined in IDAPA 58.01.01.006.41 as, "Any furnace, boiler, apparatus, stack and all appurtenances thereto, used in the process of burning fuel for the primary purpose of producing heat or power by indirect heat transfer."

Per the information in March 1, 2006 submittal, the asphalt tank heater burner heats the asphalt oil indirectly. This regulation is applicable to the tank heater. The calculated result in the submittal demonstrates that the tank heater is in compliance with the grain loading standard. No specific monitoring requirement is needed.

40 CFR 60 Subpart I...... New Source Performance Standards

Western Construction's HMA is subject to 40 CFR 60 Subpart I, Standards of Performance for Hot Mix Asphalt Facilities, and Subpart A, General Provision of 40 CFR 60. The facility has applied to burn used oil in their HMA drum dryer. The proposed change is a modification in accordance with 40 CFR 60.14. The modification triggers the facility to conduct performance test when the used oil is burned in the HMA drum dryer.

5.5 Permit Conditions Review

This section describes only those permit conditions that have been revised, modified, or deleted as a result of this permit action. All other permit conditions remain unchanged.

- 5.5.1 Permit Conditions 1.1, 1.2 and 1.3 are added to state the purpose of this permit modification.
- 5.5.2 Table 1.1 is added to summarize the regulated emissions units.
- 5.5.3 Permit Conditions 2.1 and 2.2 are added to provide the general description for HMA plant and air pollution control equipment.
- 5.5.4 Emissions limits in Permit Condition 3.4 (former Permit Condition A.1.1 and Appendix A) are revised as they are affected by burning used oil. To ensure compliance with these limits, the following requirements are included in the permit:
 - Operating requirements of hot-mix asphalt production and operation hours of the electric generator in Permit Condition 3.7.
 - Monitoring requirements of hot-mix asphalt production rates and operation hours of the electric generator in Permit Condition 3.13.
 - Operating requirements of air pollution control equipment in Permit Condition 3.8. Permit Condition 3.8.1 is added to require the operation of the drum dryer baghouse during drum dryer operation because all the emissions estimations are based on this operation requirement.
 - Monitoring requirements of air pollution control equipment in Permit Condition 3.14.
 - Operating requirements of fuel types used in HMA plant in Permit Condition 3.10
- 5.5.5 The toxic air pollutants are addressed through this permit action. Per IDAPA 58.01.01.210.08, Permit Condition 3.5 is added to limit emissions of toxic air pollutants that their controlled ambient concentrations meet the respective AACs, or AACCs.
- 5.5.6 Permit Conation 3.7 is added to provide general requirements for the asphalt production rates and the operation hours of the electric generator under different operation scenario.

- 5.5.7 Permit Condition 3.10 is added to replace the former Permit Condition A.2.2. Permit Condition 3.10 specifies fuel types used in the drum dryer, the electric generator, and the asphalt tank heater. The residual fuel oil in former Permit Condition A.2.2 is removed because it was mistakenly included, and no analysis on this fuel was conducted.
- 5.5.8 The language from the current template is used to in Permit Condition 3.12 to replace former Permit Condition A.3.5 for opacity monitoring.
- 5.5.9 Per current policy, the HMA plant cannot collocate with another HMA plant. Permit Condition 3.11 addresses this requirement.
- 5.5.10 Permit Condition 3.15 requires the permittee to conduct performance testing when the drum dryer is fired by used oil. In addition, per current policy, Permit Condition 3.15.2 requires the permittee to conduct source test at a frequency of no less than once every five years.
- 5.5.11 General provisions are replaced with the version in the current template.

6. PERMIT FEES

Western Construction submitted a \$1,000 PTC application fee on August 10, 2005, in accordance with IDAPA 58.01.01.224. Western Construction is subject to a \$500 processing fee in accordance with IDAPA 58.01.01.225 as a General Permit. DEQ received \$500 on April 11, 2006.

7. PERMIT REVIEW

7.1 Regional Review of Draft Permit

The Boise regional office was provided an opportunity to comment on the draft permit on March 29, 2006. The comments were received on April 3, 2006 and addressed in the permit.

7.2 Facility Review of Draft Permit

Western Construction was provided an opportunity to comment on the draft permit on March 29, 2006. The comments were received on April 21, 2006 and addressed in the permit.

7.3 Public Comment

An opportunity for public comment period on the PTC application was provided from October 14, 2005, to November 14, 2005, in accordance with IDAPA 58.01.01.209.01.c. During this time, there were not comments on the application, and no requests for a public comment period on DEQ's proposed action.

8. RECOMMENDATION

Based on review of application materials, and all applicable state and federal rules and regulations, staff recommend that Western Construction, Inc. be issued final PTC No. P-050037 for the hot mix asphalt plant to burn used oil. No public comment period is recommended, no entity has requested a comment period, and the project does not involve PSD requirements.

SYC/bf Permit No. P-050037

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Appendix A AIRS Information P-050037

AIRS/AFS FACILITY-WIDE CLASSIFICATION DATA ENTRY FORM

Facility Name:	Western Construction, Inc.
Facility Location:	Portable Asphalt Plant
AIRS Number:	777-00212

AIR PROGRAM POLLUTANT	SIP	PSD	NSPS (Part 60)	NESHAP (Part 61)	MACT (Part 63)	SM80	TITLE V	AREA CLASSIFICATION A-Attainment U-Unclassified N- Nonattainment
SO₂	В							Portable
NO _x	В							Portable
co	SM					_	SM80	Portable
PM ₁₀	SM							Portable
PT (Particulate)	SM		SM					Portable
voc	В							Portable
THAP (Total HAPs)	В							Portable
			APPL	ICABLE SUE	BPART			
			I					

^a Aerometric Information Retrieval System (AIRS) Facility Subsystem (AFS)

b AIRS/AFS Classification Codes:

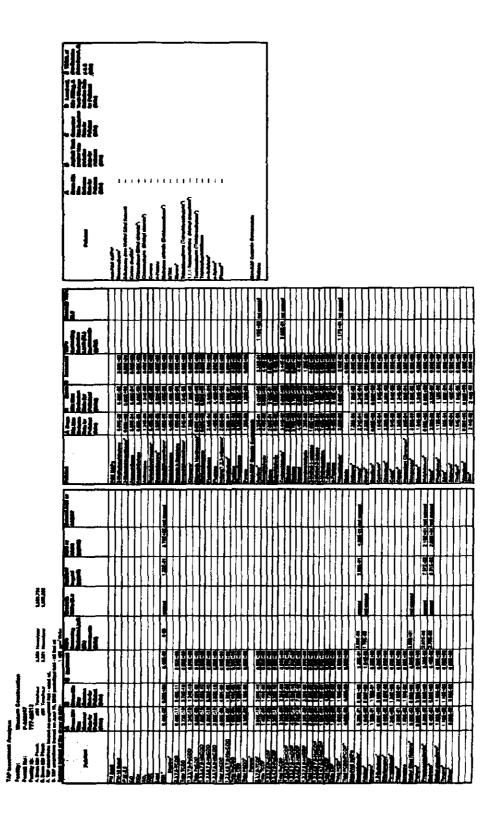
- A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For HAPs only, class "A" is applied to each pollutant which is at or above the 10 T/yr threshold, or each pollutant that is below the 10 T/yr threshold, but contributes to a plant total in excess of 25 T/yr of all HAPs.
- SM = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.
- B = Actual and potential emissions below all applicable major source thresholds.
- C = Class is unknown.
- ND = Major source thresholds are not defined (e.g., radionuclides).

Appendix B

Emissions Inventory

P-050037

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Appendix C Modeling Review P-050037

Table 6: Ambient Impact Analysis for Criteria Air Pollutants - Modification Total Impact

	Modifictn Dryer Emission Rate	Dryer Impact at 1 lb/hr Emisuns	Modifictn Gen. Engine Emission Rate	Gen. Engine Impact at 1 lb/hr Emissns	Tank Heater Emission Rate	Tank Heater Impact at 1 lb/hr Emisses	Persist Facto		Facility- Wide Modeled Conc.	Back- ground Conc.	Total Conc.	NAAQS Ambient Air Quality Standard		
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				Attainm	ent or Unc	Lessified	Ares Ope	rations	 I					
ĊO	52.0				7.83		0.005		1-hr	1.0	160	3600	3760	40000
	32,0				ļ	0.005	0.003	l i	8-hr	0.7	112_	2300	2412	10000
Lead	6.00E-03		0		0		Quarterty	0.13	0.001	0.03	0.03	1.5		
NO	8.31		11.14		0.000	I	Annual	80.0	12	17	29	100		
544		1.455	0.53	10.67	0.005	253.9	24-lw	0.4		73	81	150		
PM ₁₀	3.48		0.20	1 1	0.005	[{	Annual	0.08	0.7	26	27	50		
	23.2		4,70]	0.28	Ţ	3-hr	0.9	140	34	174	1300		
50 _t	5.3.6		7./0	ł	0.28	[[24-hr	0.4	62	26	84	365		
j '	8.76		1.77	1	0.28	1	Annual	0.08	8.3	8	16	80		

Table 6-3 Ambient Impact Analysis for Criteria Air Pollutants - Modification Net Impact

I GULE V-3	VIIIDIEHT T	inchaer vass	113-12 IV. C	11001-0-1						
Pollutant	Modifictn Dryer Emission Increase (lbs/hr)	Dryer Impact at 1 lb/hr Emissions (ug/m3)	Modifictn Generator Emission Increase (lbs/hr)	Generator Impact at 1 lb/hr Emissions (ug/m3)	Averaging Period	Persistence Factors	Facility-Wide Modifictn Modeled Conc. Increase (ug/m3)	Significant Contribution Levels (ug/m3)		
		A	ttainment (r Unclassif	able Area O	perations				
	(1-hr	1.0	59	2000		
CO.	37.6		1.455 0.0	0.37	0.37	[;	8-hr	0.7	41	500
	0.8	1.455		10.67	3-hr	0.9	2	25		
SO2			0.5	0.0	1	24-hr	0.4	1	5	
_	0,11		-0.03	}	Annual	0.08	-0.01	1.0		
, , , , , , , , , , , , , , , , , , , 	L	L	Non-A	tteinment A	ree Operati	ORS				
					1-hr	1.0	59	2000		
CO	37.6		0.37	i (8-hr	0.7	41	500		
	0.5	1.455	0.0	10.67	3-hr	0.9	2	25		
SOS	0.29		0.0		24-hr	0.4	0	5		
	0.29		0.0		Annual	0.08	0.06	1.0		

02/23/06

13:45:01

*** SCREENS MODEL RUN ***
*** VERSION DATED 96043 ***

Western Construction Tank Heater

SIMPLE TERRAIN INPUTS:

SOURCE TYPE =	POINT
EMISSION RATE (G/S) =	.126000
STACE HEIGHT (M) =	3,2320
STR INSIDE DIAM (M) -	.2810
STK BXIT VELOCITY (M/S) =	1.9330
STK GAS EXIT TEMP (K) -	616.5000
AMBIENT AIR TEMP (K) =	293.0000
RECEPTOR HEIGHT (M) =	.0000
URBAN/RURAL OPTION =	RURAL
BUILDING HEIGHT (M) =	.0000
MIN HORIZ BLDG DIN (M) -	.0000
MAX HORIE BLDG DIM (M) =	.0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED. THE REGULATORY (DEFAULT) AMENOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

STACK EXIT VELOCITY WAS CALCULATED FROM VOLUME FLOW RATE = 254.00000 (ACFM)

BUOY. FLUX = .196 M**4/8**3; MOM. FLUX # .035 M**4/8**2.

*** FULL METEOROLOGY ***

*** SCREEN AUTOMATED DISTANCES ***

*** Terrain height of 0. M above stack base used for following distances ***

	TRID	CONC		MOLU	USTK	TH XIM	PLUME	SIGMA	SIGMA
	(M)	(UG/M**3)	STAB	(M/S)	(M/S)	(M)	HT (M)	Y (M)	Z (M)
DWA	SH								
		~ ~							
				_				_	
	1.	.0000	1	1.0	1.0	320.0	9.55	. 49	. 32
Ю							_		
	100.	224.5	4	2.0	2.0	640.0	6.09	8.25	4.74
NO									
	200.	161.0	4	1.0	1.0	320.0	9,55	15.67	8.69
NO									
	300.	106.6	4	1.0	1.0	320.0	9,55	22.68	12.23
NO									
	400.	72.88	4	1.0	1.0	320.0	9.55	29.51	15.38
NO									
	500.	52.67	4	1.0	1.0	320.0	9.55	36.19	18.39
NO									
	600.	43.69	6	1.0	1.0	10000.0	17.57	21.63	10.52
NO									
	700.	44.64	6	1.0	1.0	10000.0	17.57	24.80	11.67

NO	800.	43.29	6	1.0	1.0	10000.0	17.57	27.94	12.66
Ю	900.	41.27	6	1.0	1.0	10000.0	17.57	31.05	13.61
NO	1000.	38.95	6	1.0	1.0	10000.0	17.57	34.13	14.54
NO	1100.	36.52	6	1.0	1.0	10000.0	17.57	37.19	15.38
NO	1200.	34.18	6	1.0	1.0	10000.0	17.57	40.22	16.18
NO	1300.	31.99	6	1.0	1.0	10000.0	17.57	43.24	16.97
NO	1400.	29.95	6	1.0	1.0	10000.0	17.57	46.23	17.74
NO	1500.	28.07	6	1.0	1.0	10000.0	17.57	49.20	18.49
NO	1600.	26.35	6	1.0	1.0	10000.0	17.57	52.16	19.22
	1700.	24.77	6	1.0	1.0	10000.0	17.57	55.09	19.94
NO.	1800.	23.32	6	1.0	1.0	10000.0	17.57	58.01	20.64
NO	1900.	21.99	6	1.0	1.0	10000.0	17.57	60.92	21.33
NO	2000.	20.77	6	1.0	1.0	10000.0	17.57	63.81	22.01
NO	2100.	19.68	6	1.0	1.0	10000.0	17.57	66.68	22.58
NO	2200.	18.68	6	1.0	1.0	10000.0	17.57	69.54	23.15
NO	2300.	17.76	6	1.0	1.0	10000.0	17.57	72.39	23.70
NO	2400.	16.92	6	1.0	1.0	10000.0	17.57	75.23	24.24
NO	2500.	16.13	6	1.0	1.0	10000.0	17.57	78.06	24.77
NO	2600.	15.41	6	1.0	1.0	10000.0	17.57	80.87	25.29
NO	2700.	14.74	6	1.0	1.0	10000.0	17.57	83.67	25.80
NO	2800.	14.11	6	1.0	1.0	10000.0	17.57	86.46	26.30
Ю	2900.	13.53	6	1.0	1.0	10000.0	17.57	89.24	26.80
NO	3000.	12.98	6	1.0	1.0	10000.0	17.57	92.01	27.29
NO	3500.	10.82	6	1.0		10000.0	17.57	105.73	29.27
NO	4000.	9.219	6	1.0		10000.0	17.57	119.24	31.11
NO	4500.	7.987	6	1.0	-	10000.0	17.57	132.57	32.83
NO	5000.	7.015	6	1.0		10000.0	17.57	145.73	34.45
МО	5500.	6.232	6	1.0		10000.0	17.57	158.74	35.9 9
NO	6000.	5.589	6	1.0	1.0	10000.0	17.57	171.63	37.46
	6500.	5.054	6	1.0	1.0	10000.0	17.57	184.39	38.86

```
7000.
                          1.0
                                1.0 10000.0 17.57 197.04 40.21
         4.601
NO
  7500.
         4.227
                          1.0
                                 1.0 10000.0 17.57 209.58
                                                         41.37
NO
                                             17.57 222.02 42.48
                                 1.0 10000.0
  8000.
                          1.0
         3.904
NO
                                             17.57 234.38 43.55
  8500.
         3.622
                          1.0
                                 1.0 10000.0
NO
                                 1.0 10000.0 17.57 246.64 44.59
  9000. 3.375
                          1.0
NO
                                1.0 10000.0 17.57 258.83 45.59
  9500.
                          1.0
         3.156
NO
 10000.
                          1.0
                                 1.0 10000.0 17.57 270.93 46.56
         2.961
NO
MAXIMUM 1-HR CONCENTRATION AT OR BEYOND
                                       1. M:
    42. 253.9
                          3.0
                               3.0 960.0 4.86
                                                   5.73
                                                           3.49
                    3
```

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DONNNASH USED
DWASH=HS MEANS HUBER-SEYDER DONNNASH USED
DWASH=S MEANS SCHULMAN-SCIRE DONNNASH USED
DWASH=NA MEANS DOWNNASH NOT APPLICABLE, X<3*LB

*** SUMMARY OF SCREEN MODEL RESULTS ***

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	253.9	42.	0.

** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **

```
*** SCREEN3 MODEL RUN ***
*** VERSION DATED 96043 ***
```

Western Construction HMA dryer

SIMPLE TERRAIN INPUTS:

MPLE TERRAIN INPUTS:
SOURCE TYPE - POINT
EMISSION RATE (G/S) - .126000
9.8900 STK INSIDE DIAM (M) -1.4430 STK EXIT VELOCITY (M/S) = 25.8946 STR EXIT VELOCITY (M/S) = 25.8946 STR GAS EXIT TEMP (K) = 380.3800 AMBIENT AIR TEMP (K) = 293.0000 .0000 RECEPTOR HEIGHT (M) URBAN/RURAL OPTION RURAL . 0000 BUILDING HEIGHT (M) MIN HORIZ BLDG DIM (M) = - 0000 MAX HORIZ BLDG DIM (M) = .0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED. THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

STACK EXIT VELOCITY WAS CALCULATED FROM VOLUME FLOW RATE = 89730.000 (ACFM)

BUOY. FLUX = 30.365 M**4/5**3; MOM. FLUX * 268.869 M**4/5**2.

*** FULL METEOROLOGY ***

*** SCREEN AUTOMATED DISTANCES ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M++3)	STAB	010M (M/S)	USTK (M/S)	TR XIM	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
1.	.0000	1	1.0	1.0	320.0	287.03	5.16	6 15	
100.	.3622E-01	6	1.0	1.0	10000.0	86.84	22.36	5.15 22.11	NO
200.	.4669	4	20.0	20.0	6400.0	23.15	15.75		NO
300.	1.265	4	20.0	20.0	6400.0	23.15		8.84	NO
400.	1.455	4	20.0	20.0	6400.0		22.84	12.51	NO
500.	1.371	4				23.15	29.71	15.75	NO
600.		_	20.0	20.0	6400.0	23.15	36.36	18.72	NO
	1.224	4	15.0	15.0	4800.0	28.37	43.04	21.86	NO
70 0 .	1.130	4	15.0	15.0	4800.0	28.37	49.47	24.61	NO
800.	1.033	4	10.0	10.0	3200.0	37.60	56.13	27.93	NO
900.	. 9859	4	10.0	10.0	3200.0	37.60	62.39	30.51	NO
1000.	.9262	4	10.0	10.0	3200.0	37.60	68.59	33.06	NO
1100.	.8611	4	10.0	10.0	3200.0	37.60	74.73	35.03	NO
1200.	.8143	4	8.0	8.0	2560.0	44.53	81.05	37.42	NO
1300.	.7707	4	8.0	8.0	2560.0	44.53	87.08	39.27	
1400.	.7285	4	8.0	8.0	2560.0	44.53			NO
1500.	. 6884	-					93.08	41.07	NO
		4	8.0	8.0	2560.0	44.53	99.04	42.83	NO
1600.	. 6505	4	8.0	8.0	2560.0	44.53	104.96	44.55	NO

```
1700.
           . 6151
                              8.0
                                      8.0 2560.0
                                                    44.53 110.85
                                                                     46.24
                                                                              NO
  1800.
           .5821
                              8.0
                                      8.0 2560.0
                                                    44.53 116.71
                                                                     47.90
                                                                              NQ
  1900.
           .5627
                              5.0
                                      5.0
                                           1600.0
                                                    65.32
                                                           123.15
                                                                              NO
                                                                     51.04
  2000.
           .5572
                                                            97.98
                                     2.0 10000.0
                                                                     39.54
                        5
                              2.0
                                                    83.49
                                                                              NO
  2100.
           .5716
                              2.0
                                     2.0 10000.0
                                                    83.49
                                                          102.21
                                                                     40.35
                                                                              NO
  2200.
           .5860
                                     1.5 10000.0
                                                    90.90
                                                           106.87
                                                                              NO
                              1.5
                                                                     42.26
           . 6009
  2300.
                              1.5
                                     1.5 10000.0
                                                    90.90
                                                           111.06
                                                                     43.03
                                                                              NO
  2400.
           .6142
                              1.5
                                     1.5 10000.0
                                                    90.90 115.24
                                                                     43.78
                                                                              NO
  2500.
           . 6262
                        5
                              1.5
                                     1.5 10000.0
                                                    90.90
                                                                              NO
                                                           119.40
                                                                     44.53
  2600.
           .6370
                        5
                              1.0
                                     1.0 10000.0
                                                   102.62
                                                           124.23
                                                                     47.07
                                                                              NO
  2700.
           . 6512
                        5
                              1.0
                                     1.0 10000.0
                                                   102.62
                                                           120.35
                                                                     47.77
                                                                              NO
  2800.
           . 6643
                        5
                              1.0
                                     1.0 10000.0
                                                   102.62
                                                           132.46
                                                                     48.47
                                                                              NO
  2900.
           .6763
                              1.0
                                     1.0 10000.0
                                                   102.62
                                                           136.56
                                                                     49.16
                                                                              NO
                                     1.0 10000.0
  3000.
           .6872
                        5
                              1.0
                                                   102.62
                                                                     49.85
                                                                              NO
                                                           140.65
  3500.
           .7282
                        5
                              1.0
                                     1.0 10000.0
                                                   102.62
                                                           160.95
                                                                     53.18
                                                                              NO
  4000.
           .7499
                              1.0
                                     1.0 10000.0
                                                  102.62
                                                           181.01
                                                                     56.38
  4500.
           .7482
                              1.0
                                     1.0 10000.0
                                                   102.62
                                                           200.84
                                                                     59.09
                                                                              NO
  5000.
          .7392
                                     1.0 10000.0
                                                   102.62
                        5
                              1.0
                                                           220.46
                                                                     61.69
                                                                              NO
  5500.
           .7256
                        5
                              1.0
                                     1.0 10000.0
                                                   102.62
                                                           239.88
                                                                     64.1B
                                                                              NO
  6000.
          .7137
                                     1.0 10000.0
                       6
                              1.0
                                                    86.84
                                                           172.98
                                                                     43.24
                                                                              NO
  6500.
          .7214
                                     1.0 10000.0
                              1.0
                                                    86.84
                                                           185.65
                                                                     44.46
                                                                              NO
                        6
  7000.
          .7257
                                     1.0 10000.0
                       6
                              1.0
                                                    86,84
                                                           198.22
                                                                     45.64
                                                                              NO
  7500.
          .7222
                                     1.0 10000.0
                       6
                              1.0
                                                    86.84
                                                          ·210.69
                                                                     46.67
                                                                              NO
          .7172
  8000.
                              1.0
                                     1.0 10000.0
                                                    86.84
                                                           223.07
                                                                     47.66
                                                                              NO
  8500.
          .7109
                                     1.0 10000.0
                       6
                              1.0
                                                    86.84
                                                           235.37
                                                                     48.61
                                                                              NO
  9000.
          .7037
                       6
                              1.0
                                     1.0 10000,0
                                                    86.84
                                                           247.59
                                                                     49.54
                                                                              NO
  9500.
          .6958
                              1.0
                                     1.0 10000,0
                                                    86.84
                                                           259.73
                                                                     50.45
                                                                              NO
 10000.
          .6873
                              1.0
                                     1.0 10000,0
                                                    86.84
                                                           271.79
                                                                     51.33
                                                                              NO
MAXIMUM 1-HR CONCENTRATION AT OR BEYOND
                                             1. M:
                                   20.0 6400.0 23.15 29.91
  402.
         1.455
                       4
                            20,0
                                                                   15.85
                                                                              NO
          MEANS NO CALC MADE (CONC = 0.0)
```

DWASH= DWASH-NO MEANS NO BUILDING DOWNWASH USED DWASH-HS MEANS HUBER-SNYDER DOWNWASH USED DWASH-SS MEANS SCHULMAN-SCIRE DOWNWASH USED DWASH-NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

*** SUMMARY OF SCREEN MODEL RESULTS *** ***********

CALCULATION	MAX CONC	DIST TO	TERRAIN
PROCEDURE	(UG/M**3)	MAX (M)	HT (M)
SIMPLE TERRAIN	1.455	402.	ο.

** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **

```
*** SCREEN3 MODEL RUN ***
*** VERSION DATED 96043 ***
```

Nesten Construction generator

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = POINT

EMISSION RATE (G/S) = .126000

STACK HEIGHT (M) = .2500

STK INSIDE DIAM (M) = .2500

STK EXIT VELOCITY (M/S) = 67.0126

STK GAS EXIT TEMP (K) = .758.1600

AMBIENT AIR TEMP (K) = .293.0000

RECEPTOR HEIGHT (M) = .0000

URBAN/RURAL OPTION = RURAL

BUILDING HEIGHT (M) = .0000

MIN HORIZ BLDG DIM (M) = .0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED. THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

STACK EXIT VELOCITY WAS CALCULATED FROM VOLUME FLOW RATE = 6970.0000 (ACFM)

BUOY. FLUX = 6.300 M**4/S**3; MOM. FLUX = 27.117 M**4/S**2.

*** FULL METEOROLOGY ***

*** SCREEN AUTOMATED DISTANCES ***

*** TERRAIN HEIGHT OF O. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
1.	-0000	1	1.0	1.0	320.0	89.76	2.54	2.51	NO
100.	9.657	3	10.0	10.0	3200.0	13.09	12.59	7.66	NO
200.	9.791	4	15.0	15.0	4800.0	10.25	15.65	8.65	NO
300.	8.368	4	8.0	8.0	2560.0	15.22	22.81	12.47	NO
400.	6.755	4	5.0	5.0	1600.0	21.61	29.85	16.03	NO
500.	6.056	4	5.0	5.0	1600.0	21.61	36.47	18.93	NO
600.	5.314	4	4.5	4.5	1440.0	23.50	43.06	21.89	NO
700.	4.735	4	4.0	4.0	1280.0	25.87	49.56	24.79	Ю
800.	4.284	4	3.5	3.5	1120.0	28.91	56.01	27.67	NO
900.	3.917	4	3.0	3.0	960.0	32.97	62.41	30.56	NO
1000.	3.585	4	3.0	3.0	960.0	32.97	68.61	33.10	NO
1100.	3.334	4	2.5	2.5	800.0	38.65	74.95	35.49	NO
1200.	3.104	4	2.5	2.5	800.0	38.65	81.03	37.38	NO
1300.	2.891	4	2.5	2.5	800.0	38.65	87.06	39.23	NO
1400.	2.897	5	1.0	1.0	10000.0	59.46	70.97	31.00	NO
150 0 .	2.967	5	1.0	1.0	10000.0	59.46	75.35	32.03	NO
1600.	3.017	5	1.0	1.0	10000.0	59.46	7 9.71	33.05	NO

```
1700.
           3.089
                               1.0
                                      1.0 10000.0
                                                     50.12
                                                              56.46
                                                                      23.46
                                                                                NO
   1800.
           3.208
                               1.0
                                      1.0 10000.0
                                                     50.12
                                                                      24.06
                                                              59.31
                                                                                NO
   1900.
           3.313
                               1.0
                                      1.0 10000.0
                                                     50.12
                                                              62.16
                                                                      24.65
                                                                                NO
  2000.
           3.404
                         6
                               1.0
                                      1.0 10000.0
                                                     50.12
                                                              64.99
                                                                      25.24
                                                                                NO
  2100.
           3.452
                                      1.0 10000.0
                         6
                               1.0
                                                                      25.74
                                                     50.12
                                                              67.82
                                                                               NO
  2200.
           3,490
                         6
                               1.0
                                      1.0 10000.0
                                                     50.12
                                                              70.63
                                                                      26.24
                                                                               NO
  2300.
           3.519
                         6
                               1.0
                                      1.0 10000.0
                                                     50.12
                                                              73.44
                                                                      26.72
                                                                                NO
  2400.
           3.542
                         6
                               1.0
                                      1.0 10000.0
                                                     50.12
                                                              76.24
                                                                      27.20
                                                                               NO
  2500.
           3.557
                         6
                               1.0
                                      1.0 10000.0
                                                     50,12
                                                             79.03
                                                                      27.68
                                                                               NO
  2600.
           3.567
                         6
                              1.0
                                      1.0 10000.0
                                                     50.12
                                                              81.81
                                                                      28.14
                                                                               NO
  2700.
           3.571
                         6
                              1.0
                                      1.0 10000.0
                                                     50.12
                                                             84.58
                                                                      28.60
                                                                               NO
  2800,
           3.570
                         6
                                      1.0 10000.0
                               1.0
                                                     50.12
                                                             87.34
                                                                      29.06
                                                                               NO
  2900,
           3.565
                         6
                               1.0
                                      1.0 10000.0
                                                     50.12
                                                             90.09
                                                                      29.51
                                                                               NO
  3000.
          3.556
                        6
                              1.0
                                      1.0 10000.0
                                                             92.84
                                                     50.12
                                                                      29.95
                                                                               NO
  3500.
           3.416
                                      1.0 10000.0
                        6
                               1.0
                                                     50.12
                                                           106.45
                                                                      31.77
                                                                               NO
  4000.
          3.257
                        6
                               1.0
                                      1.0 10000.0
                                                     50.12
                                                            119.88
                                                                      33.47
                                                                               NO
  4500.
          3.094
                        6
                                      1.0 10000.0
                              1.0
                                                     50.12
                                                           133.14
                                                                      35.08
                                                                               NO
  5000.
          2.934
                        6
                              1.0
                                      1.0 10000.0
                                                     50.12
                                                           146.25
                                                                      36.60
                                                                               NO
  5500.
          2.780
                        6
                              1.0
                                      1.0 10000.0
                                                     50.12 159.22
                                                                      38.05
                                                                               NO
  6000.
          2.636
                        6
                                      1.0 10000.0
                              1.0
                                                     50.12
                                                            172.07
                                                                      39.44
                                                                               NO
  6500.
          2.500
                        6
                              1.0
                                      1.0 10000.0
                                                     50.12
                                                            184.80
                                                                      40.78
                                                                               NO
  7000
          2.375
                        6
                              1.0
                                      1.0 10000.0
                                                    50.12
                                                           197.42
                                                                      42.07
                                                                               NO
  7500.
          2.255
                        6
                              1.0
                                      1.0 10000.0
                                                            209.94
                                                    50.12
                                                                      43.17
                                                                               NO
  8000.
          2.146
                        6
                              1.0
                                      1.0 10000.0
                                                    50.12
                                                            222.37
                                                                      44.24
                                                                               NO
  8500.
          2.045
                        6
                              1.0
                                      1.0 10000.0
                                                    50.12
                                                            234.70
                                                                      45.27
                                                                               NO
  9000.
          1.952
                                      1.0 10000.0
                              1.0
                                                    50.12
                                                            246.95
                                                                      46.27
                                                                               NO
  9500.
          1.866
                              1.0
                                      1.0 10000.0
                                                    50.12
                                                            259.12
                                                                               NO
                                                                      47.24
 10000.
          1.787
                        6
                              1.0
                                      1.0 10000.0
                                                    50.12
                                                            271.21
                                                                      48.18
                                                                               NO
MAXIMUM 1-HR CONCENTRATION AT OR BEYOND
                             20.0
                                    20.0 6400.0
                                                     8.83
                        4
                                                            10.96
                                                                      6.18
                                                                               NO
 DWASH-
          MEANS NO CALC MADE (CONC - 0.0)
```

DWASH-MEANS NO CALC MADE (CONC - 0.0)
DWASH-NO MEANS NO BUILDING DOWNWASH USED
DWASH-HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH-SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DNASH-NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

*** SUMMARY OF SCREEN MODEL RESULTS ***

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	10.67	175	n

** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **

Appendix D Fugitive Dust Plan P-050037

DUST SUPPRESSION PLAN (DSP) Revised 01/26/00

Plan Prepared for Western Construction, Inc. (WCl)

Portable Crusher #1	Permit to Construct #777-00042
Portable Crusher #3	Permit to Construct #777-00098
Portable Crusher #4	Permit to Construct #777-00231
Hot Mix Asphalt Plant	Permit to Construct #777-00212

Background: WCI is submitting this DSP as required by the consent order effective January 5, 2000 signed by Steve Alred, Administrator, Division of Environmental Quality (DEQ) and Richard Heaton, President, Western Construction Inc. This plan outlines the methods and procedures to the extent practicable, that WCI will implement to control fugitive dust emissions for the above permits.

Scope of Plan: This plan allows the superintendent the flexibility to best address dust suppression for the plant at each unique location and weather condition. It is the superintendent and foreman's responsibility to implement this plan. The areas covered by this dust suppression plan are as follows:

Crushers	Hot Mix Plant
Crusher/Screening Units	Transfer Points
Transfer Points	Stockpile and Haul Areas
Stockpile and Haul Areas	

Implementation: The Superintendent will visually evaluate the unique circumstances to each site as to the nature and severity of the potential dust problems. The evaluation may include all or some of the following: time of year, the material to be utilized in production, haul roads, stockpile areas, crushing units, screening units, possible weather conditions and location. This evaluation will be used to determine the plant set up.

Upon determination of proper crusher set up, spray bars and nozzles will be placed at the transfer points of crushers. A 3,000-gallon water tank will be filled as necessary to provide adequate water to the water system of spray bars and nozzles. The water system will be installed and operational before commencement of operation. In the event of a water system failure, the plant will cease to operate until the water system has been properly repaired.

Water or a chemical dust suppressant will be used to control dust on haul roads. Vehicle speed will also be evaluated as a potential to reduce dust. The water truck will water stockpiles to create a crust on the pile to control dust. The stockpile will not be watered if the stockpile is to be used within a reasonable amount of time in the hot mix asphalt plant for the production of asphalt

The total amount of water to be used to control dust will range from 0-80,000 gallons per day. The exact amount of water to be used will be determined by the superintendent or foreman for each day to control dust. The superintendent or foreman will be responsible for visually evaluating the effectiveness of the dust suppression equipment. Project superintendents and/or environmental officers will periodically inspect the plants to ensure compliance.

Records will be kept daily on quantity and frequency of water or dust suppressant used. (See attached form) A maintenance checklist (attached) will be used daily to ensure proper functioning of all dust suppression equipment.

		Record Daily		Date	N 3 E	Zoa	p t -)	G υ €	I- Jane	the second	Ø ≅
	<u>s</u> 3		Operati	Start							
	Permit to Co Location:	Attainment	Crusher Operating Hours	Stop							
J	Permit to Construct Number: Location:		Production Tons								
CONT	mber:	☐Unclassified	li——								
LLY PH ROL M V		ssified	!—								
DAILY PRODUCTION, OPERATING HOURS, CONTROL MEASURES, PIT DEPTH AND SETBACK Western Construction Inc. Fauel Omeertunity Employer		□Non-Attainment	Emission Control Methods Used								· · · · · · · · · · · · · · · · · · ·
OPERAT	Portable Rock Crushing Plant Number:	nment	Control s Used								
ING HO	ck Crushir	Collocated	Quantity Used							i	
URS, ETBACK	ıg Plant Nur	ocated	Prequency of Use								
	mber:	No.	Reason for Not	Using							
		□Not Collocated	Generator Hours of Operatio	Start/Stop Total							
0151			of Operatio	Gallons Type 2 Fu							

Dust Suppression Equipment Maintenance Checklist

On a daily basis check all equipment listed for proper working order. Make sure to comment on all repairs made or parts ordered. Add sheets if needed.

Comments on Repairs													
Nozzles, Spray Bars & Hoses													
Pump at Water Tank			5									41.74	
Water Tank													
Pump on Water Truck													
Water Truck			-								 		
Date		!!											